

REMARKS

Claims 1-17 remain pending in this application. Claims 1 and 14 are independent. No claims have been amended, added, or canceled by this Request for Reconsideration.

Unpatentability Rejection over Tseng et al. in View of Navaro et al.

Withdrawal of the rejection of claims 1-12 and 14-17 under 35 U.S.C. §103(a) as allegedly being unpatentable over Tseng et al (US 6,172,974) ("Tseng") in view of Navaro et al. (US 6,108,560) ("Navaro") is requested. The Examiner has failed to make a *prima facie* case of unpatentability. The applied art does not teach or suggest all the claimed limitations, and the motivation to combine the references in the manner suggested is deficient, as discussed further below.

At the outset, Applicant notes that, to establish a *prima facie* case of obviousness, three basic criteria offer useful insights. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference must teach or suggest all the claim limitations.¹ Further, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure.² The Supreme Court recently held that it is necessary, *inter alia*, for a court to look to interrelated teachings of multiple patents in order to determine whether there was an apparent reason to combine the known elements in the claimed. In this regard, the Court held "[t]o facilitate review, this analysis should be made explicit."³ "[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness."⁴

¹ See MPEP §2143.

² *In re Vaack*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991) and See MPEP §2143.

³ *KSR Int'l. Co. v. Teleflex Inc.*, 550 U.S. ____ (2007) (see p. 14).

⁴ See *Id.*, citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006).

Discussion of Applicant's Disclosure

By way of background, one or more embodiments of Applicant's disclosure are directed to a digital telecommunication system in which the telecommunication centers of the calling and called terminal are arranged to perform handshaking concerning the speech codec used by the terminals. Depending on the link between the telecommunication centers, the telecommunication centers are arranged to connect call connections past a transcoder unit or to control the transcoder units to let an encoded speech through without speech encoding operations in such a way that speech encoding and decoding are carried out only in the terminals. Handshaking between the telecommunication centers is carried out using outband a signaling.

The general technical approach involved with various aspects of the present disclosure is mainly focused on transcoder-free operation (TrFO), wherein the transcoders are not a part of transmission path, but instead are only connected when needed. Furthermore, the TrFO negotiation is terminal-driven, *i.e.* the speech codecs supported by the terminals are indicated to the mobile switching centers (MSC), and in the TrFO negotiation, transcoders are only connected if no commonly supported speech codec is found.

Discussion of Tseng

According to its Abstract, Tseng is purportedly directed to a method and apparatus for achieving tandem free operation (TFO) including bypass transcoding and cross transcoding in a communication system. Tseng provides communication of compressed voice signals, or voice signals compressed in a common format, between wireless mobile stations across a public switched telephone network (PSTN) by bypassing vocoders residing in the mobile switching center (MSC)/base station controller (BSC) of the communication system, or between network elements of an asynchronous transfer mode (ATM) network. In a wireless network, a capability signal, preferably being a low frequency tone, is transmitted by the terminating MSC/BSC to the originating MSC/BSC to indicate that the terminating element is capable of transcoding or transcoding and cross transcoding. The originating element responsively generates an optional low frequency (LF) tone and a 2100 Hz tone to disable network cancellers between the originating element and the terminating element in the forward direction. The terminating element, then, responsively generates a 2100 Hz tone to disable network echo cancellers between

the terminating element and the originating element in the backward direction, whereby the vocoders of the network are bypassed. Compression and decompression of voice signals is only provided by the vocoders integrated into the terminating wireless mobile stations.

Tseng merely discloses a signaling method for achieving a tandem-free operation (TFO) in a mobile-to-mobile call (MMC) in a telecommunication system. The centers are arranged to transmit capability signals to each other to indicate that a particular center is capable of transcoding (or cross transcoding, if needed). Then, the transcoders are bypassed by sending low frequency tone signals to the opposite centers.

Accordingly, Tseng discloses a conventional TFO operation directed to the idea of using appropriate LF tone signals for signaling the start of TFO operation. In the system of Tseng, the transcoders are a part of the transmission path, and transcoding is a default setting for the operation, which has to be separately switched off.

The Examiner argues that Tseng discloses that the terminals indicate their supported speech codecs to their associated switching centers by referring to the tones indicating the type of transcoding or cross transcoding during network setup (col. 5:33-65, col. 9:40-65). Applicant traverses this mischaracterization of Tseng. The cited passages of the reference merely disclose that the centers (*i.e.*, MSC/BSCs) indicate to each other whether they are capable of transcoding, and then the transcoders are bypassed by sending LF tone signals to the opposite centers. Accordingly, ***Applicant submits that Tseng is completely silent with respect to providing any reference to any activity in which a terminal would indicate its speech codecs to a switching center, or in which a terminal would even have occasion to indicate its speech codecs to a switching center.***

In this regard, Applicant submits ***such an indication would be futile in the system of Tseng***, since Tseng discloses inter-system (GSM/TDMA/CDMA) TFO operations, whereas the speech codecs of the terminals are system-dependent, *i.e.* the respective switching center is ***always*** aware of speech codecs supported by the terminals. Hence, there is no need to indicate the speech codecs supported by the terminals to the switching centers.

Since, in stark contrast to Applicant's variously claimed invention, Tseng does not disclose that a terminal would indicate its speech codecs to a switching center, it can be unambiguously concluded that *the terminals of Tseng also do not participate in the selection of inter-MSC coding, and are incapable of participating in the selection of inter-MSC coding.*

The Examiner correctly admits that Tseng does not disclose that at least one of the first and second centers is configured to choose the speech codec used commonly by the calling and called terminals, but incorrectly asserts that Navaro as teaches this feature at col. 8:5 through col. 9:5). Applicant traverses this alleged teaching of Navaro.

Discussion of Navaro

According to its Abstract, Navaro is purportedly directed to a wireless communications system, and in particular to wireless communication systems which employ coder-decoder means in the transmission of information between two parts of the system. One aspect of Navaro allegedly provides a method of setting up a wireless communications link between two radio stations which each communicate with a respective base station by the use of a selected one of several codecs. The method includes signaling by each party to the other party of the codecs supported between each radio station and base station by each party; and selecting an appropriate codec based upon the signaling information, whereby the quality of the link is supposedly maximized.

However, Navaro makes it clear (see, e.g., col. 9:3-5) that the choice of the codec is an internal process for the BSS (Base Station Subsystem). Applicant submits that it is generally known that a base station system (BSS) comprises a base station controller (BSC), a plurality of base transceiver stations (BTS), and a transcoder and rate adapter unit (TRAU). Navaro further discloses that, for choosing a common codec, the BSC provides a list of codecs and the codec version of the MS to the TRAU (see col. 8:7-10). Then the TRAU's of the opposite sides negotiate with each other in order to find a common codec. Thus, *Navaro does not teach or suggest any centers which would choose the speech codec used commonly by the calling and called terminals.*

Furthermore, Navaro does not teach, suggest, or even provide so much as a hint that the terminals would indicate their supported speech codecs to their associated switching centers.

Accordingly, a combination of Tseng with Navaro does not disclose, teach, or suggest all the limitations of the pending independent claims and, further, a person of ordinary skill in the art would not be motivated to combine Tseng with Navaro to arrive at Applicant's claimed invention, as discussed below.

This conclusion is supported by the fact that both Tseng and Navaro concentrate purely on tandem-free operation (TFO), for the specific reason that the transcoders are *always* a part of the transmission path, and for a mobile-to-mobile call, they *must* be separately switched off.

Specific Deficiencies of the Suggested Combination

The applied art, either alone or in combination, does not disclose, teach or suggest a digital telecommunication system that includes, *inter alia*, "...a first centre configured to enable speech communication between a plurality of terminals, the first centre being associated with a calling terminal and including a first transcoder unit...a second centre...associated with a called terminal and including a second transcoder unit, wherein at least one of the first and second centres comprises a mobile switching center...***wherein the terminals are arranged to provide information regarding the supported speech codecs to their associated switching centres...wherein at least one of the first and second centres is configured to choose the speech codec used commonly by the calling and called terminals***, and wherein at least one of the first and second centres is configured to ***establish call connections that bypass one or more of the transcoder units or to control the transcoder units to transmit encoded speech between the called and calling terminals without performing speech encoding operations so that speech is encoded and decoded only in the terminals***," as recited in previously-presented independent claim 1 (*emphasis added*).

Further, the applied art, either alone or in combination, does not disclose, teach or suggest a mobile switching centre in a digital telecommunication network wherein, *inter alia*, "the mobile switching centre is configured to perform handshaking with another centre associated with a called terminal, ***the handshaking including indication of speech codecs supported by the***

calling terminal associated with the centre, the centre also being configured to choose the speech codec commonly used by the terminals, and the mobile switching centre is configured to connect a call connection that bypasses the transcoder unit or to control the transcoder unit to transmit the encoded speech without performing speech encoding operations in such a way that speech encoding and decoding are only performed in the calling or called terminal," as recited in previously-presented independent claim 14 (*emphasis added*).

Accordingly, since the applied art does not teach or suggest all the claimed limitations, reconsideration and allowance of independent claims 1 and 14 are respectfully requested. In addition, dependent claims 2-13 and 15-17 variously and ultimately depend patentable independent claim 1, and are submitted as being allowable at least on that basis, without further recourse to the patentable features recited therein.

Tseng "Teaches Away" from the Claimed Invention

Even if the applied art, either alone or in combination, taught or suggested all the limitations recited in the independent claims (which it does *not*), a person with skill in the art would not have a rational reason to combine Tseng with Navaro in the manner suggested by the Examiner, because Tseng teaches away from Applicant's invention as recited in independent claims 1 and 14. Only through the use of improper hindsight analysis would these references be looked upon to derive Applicant's novel and non-obvious invention, as claimed.

It is impermissible within the framework of 35 U.S.C. §103 to pick and choose from any one reference only so much of it as will support a given position to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one skilled in the art.⁵ Further in this regard, as the Court of Customs and Patent Appeals, predecessor to the Federal Circuit, has held:

All relevant teachings of cited references must be considered in determining what they fairly teach to one having ordinary skill in the art. The relevant portions of a reference include not only those teachings which would suggest particular aspects of an invention to one having ordinary skill in the art, but

⁵ *Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc.*, 230 USPQ 416 (Fed. Cir. 1986).

also those teachings which would lead such a person away from the claimed invention.⁶

The rejections in the Official Action amount, in substance, to nothing more than hindsight reconstruction of Applicants' invention by relying on isolated teachings of the applied art, without considering the overall context within which those teachings are presented. Without benefit of Applicants' disclosure, a person having ordinary skill in the art would not know what portions of [Tseng and Navaro] to consider, and what portions to disregard as irrelevant or misleading.⁷

As previously discussed, Tseng fails to teach or suggest a solution in which there is reference to any activity in which a terminal would indicate its speech codecs to a switching center. In fact, *Tseng teaches away* from the claimed invention due to the fact that any such indication would be futile in the system of Tseng, since Tseng discloses inter-system (GSM/TDMA/CDMA) TFO operations, in which the speech codecs of the terminals are system-dependent, *i.e.* the respective switching center is *always* aware of speech codecs supported by the terminals. Hence, there is no need whatsoever in Tseng to indicate the speech codecs supported by the terminals to the switching centers. Further, since Tseng has no need for a terminal to indicate its speech codecs to switching center, it can be unambiguously concluded that the terminals of Tseng absolutely do not participate in the selection of inter-MSC coding, contrary to Applicant's claimed invention.

In stark contrast, Applicant's invention as claimed in independent claim 1, for example, recites that the terminals are arranged to provide information regarding the supported speech codecs to their associated switching centers, and at least one of the first and second centers is configured to choose the speech codec used commonly by the calling and called terminals. Similar recitations pertain to independent claim 14. Accordingly, Applicant submits that Tseng would have lead a person skilled in the art away from the claimed invention.

⁶ *In re Mercier*, 185 USPQ 774, 778 (CCPA 1975).

⁷ *In re Wesslau*, 147 USPQ 391, 393 (CCPA 1965).

Unpatentability Rejection over Tseng and Navaro in view of Hellwig

Withdrawal of the rejection of claim 13 under 35 U.S.C. §103(a) as allegedly being unpatentable over Tseng and Navaro in view of Hellwig et al. (US 695302) ("Hellwig") is requested. The Examiner has failed to make a *prima facie* case of unpatentability. The legal requirements for a *prima facie* case of unpatentability have been discussed above, along with the deficiencies of Tseng and Navaro with respect to independent claim 1, from which claim 13 depends.

Discussion of Hellwig

According to the abstract, Hellwig is purportedly directed to alternating speech and data transmission in digital communications systems over a single circuit implemented within a communication network which include first nodes which include both a data source and a speech source. Digital information, comprising either speech parameters or data, is sent in discrete blocks between the first node and a second node connected to the network. An inband signaling bit pattern is included within selected blocks sent by a TX-alternator in the sending node to indicate whether all following digital information is to be interpreted by the receiving node as speech or data and a RX-alternator in the receiving node interprets the digital information in accordance with the last received inband signaling pattern. One exemplary implementation is asserted as being in a GSM cellular radio network in tandem free operation.

The Examiner admits that combination of Tseng with Navaro is deficient with respect to providing a teaching or suggestion that the telecommunications system is configured to support a packet-switched link between the first and second centers, and asserts that Hellwig makes up for this admitted deficiency.

Whether or not Hellwig teaches or suggests that for which it is offered by the Examiner, Hellwig clearly does not make up for the previously identified deficiencies of Tseng and Navaro with respect to independent claim 1 from which claim 13 depends. Accordingly, withdrawal the rejection and allowance of claim 13 are respectfully requested.

Conclusion

All rejections having been addressed, Applicant submits that each of pending claims 1-17 in the present application is in immediate condition for allowance. An early indication of the same would be appreciated.

In the event the Examiner believes that an interview would be helpful in resolving any outstanding issues in this case, the Undersigned Attorney is available at the telephone number indicated below.

Although no fees are believed to be due, for any fees that are due during the pendency of this application, please charge Deposit Account Number 03-3975 from which the Undersigned Attorney is authorized to draw. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

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Respectfully submitted,

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